

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

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Applicant's or agent's file reference 15270J-98-1P	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US04/02856	International filing date (day/month/year) 31 January 2004 (31.01.2004)	(Earliest) Priority Date (day/month/year) 01 February 2003 (01.02.2003)
Applicant NEURALAB LIMITED		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the Report**

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

Certain claims were found unsearchable (See Box No. II)

Unity of invention is lacking (See Box No. III)

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. \_\_\_\_\_

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

- b.  none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/02856

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12N 15/85, 15/86; A61K 39/00, 39/395; C07K 5/00  
 US CL : 530/300,350.387.3; 424/130.1,178.1,184.1; 435/325

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 530/300,350.387.3; 424/130.1,178.1,184.1; 435/325

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SOLOMON, B. Immunological Approaches as Therapy for Alzheimer's Disease. Vaccines & Antibodies December 2002, Vol.2, No. 8, pages 907-017, entire document.	1-102
A	BARD, F. ET AL. Epitope and isotype specificities of antibodies to b-amyloid peptide for protection against Alzheimer's disease-like neuropathology. PNAS 18 February 2003, Vol. 100, No.4, pages 2023-2028, entire document.	1-102
A	LEVERONE, J.F. ET AL. Ab1-15 is less immunogenic than Ab1-40/42 for intranasal immunization of wild-type mice but may be effective for "boosting". Vaccine 16 May 2003, Vol. 21, No. 17-18, pages 2197-2206, entire document.	1-102
A	HOLTMAN D.M. ET AL. Ab immunization and anti-Ab antibodies: potential therapies for the prevention and treatment of Alzheimer's disease. Advanced Drug Delivery Reviews 7 December 2002, Vol. 54, No. 12, pages 1603-1613, entire document.	1-102
A	SIGURDSSON, E.M. A safer vaccine for Alzheimer's disease? Neurobiology of Aging November/December 2002, Vol. 23, No. 6, pages 1001-1008, entire document.	1-102



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

15 November 2004 (15.11.2004)

Date of mailing of the international search report

14 DEC 2004

Name and mailing address of the ISA/US

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International application No.  
PCT/US04/02856

## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/0162129 A1 (LANNEFLT, L. ET AL.) 31 October 2002 (31.10.2002), especailly paragraph 0017, 0020, 0032, 0035-0041, page 8.	1, 4-6, 8, 14, 17, 27, 28, 48, 51-53, 55, 61, 64, 74, 75, 96, 99-102
X	US 2002/0094335 A1 (CHALIFOUR, R. ET AL.) 18 July 2002 (18.07.2002), paragraph 0020-0024, 0079-0112, pages 18-20.	1, 4-6, 8, 14, 17, 27, 28, 48, 51-53, 55, 61, 64, 74, 75, 96, 99-102
X	SCHENK, D. ET AL. Immunization with amyloid- $\beta$ attenuates Alzheimer-disease-like pathology in the PDAPP mouse. Nature 8 July 1999, Vol. 400, No. 6740, pages 173-177, especially Figures 1-6.	1, 4-6, 8, 48, 51-53, 55, 57-58, 96, 99-102
X	SIGURDSSON, E.M. ET AL. Immunization with a Nontoxic/Nonfibrillar Amyloid- $\beta$ Homologous Peptide Reduces Alzheimer's Disease-Associated Pathology in Transgenic Mice. American Journal of Pathology August 2001, Vol. 159, No. 2, pages 439-447, especially Figure 3.	1, 4-6, 8, 48, 51-53, 55, 57-58, 96, 99-102
X	LEMERÉ, C.A. ET AL. Intranasal immunotherapy for the treatment of Alzheimer's disease: Escherichia coli LT and LT(R192G) as mucosal adjuvants. Neurobiology of Aging November/December 2002, Vol. 23, No. 6, pages 991-1000, especially Tables 1-2, Figures 1-3.	1, 4-6, 8, 48, 51-53, 55, 57-58, 96, 99-102

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Continuation of B. FIELDS SEARCHED Item 3:  
WEST (USPT, PGPUBS, JPO, EPO, DERWENT) MEDLINE (PUBMED) STN (BIOSCIENCE)  
abeta, beta-amyloid, Alzheimers disease, vaccine, immunogenic fragment, antibody, antigen, epitope